UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,633	03/12/2007	Halbe Tiemen Hageman	P18177-US1	8584

27045 7590 06/22/2010
ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

EXAMINER	
SARWAR, BABAR	
ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
06/22/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

kara.coffman@ericsson.com
jennifer.hardin@ericsson.com
melissa.rhea@ericsson.com

Office Action Summary	Application No.	Applicant(s)	
	10/596,633	HAGEMAN ET AL.	
	Examiner	Art Unit	
	BABAR SARWAR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 03/24/2010 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir.1992). In this case, the Examiner very kindly directs the Applicant to Ruska e.g. Col. 1: 47-67, Col. 2: 1-8, Col. 6:5-15, Col. 6:54-67, Col. 7:1-6, Col. 10: 39-60, and Figs. 1, 3-4, 12, that the object of Ruska is to minimize or reduce power consumption i.e. to save power in a base station/a node by measuring the traffic load of the base station in combination with parameters such as statistical analysis and/or thresholds which are used to figure out if the base station needs to implement power saving mode (emphasis added). When the base station's traffic load falls below a predetermined threshold for a predetermined period of time, the base station implements the power saving process by turning off particular components or functions or instructs certain components to enter a sleep mode (emphasis added). On the other hand, in an analogous field of endeavor, Greenwood teaches concept of managing power supply to a base station having a multiple of transceivers (See

Greenwood e.g. the base station with the transceivers (TRX) of Figs. 1-2, Page 1 lines 6-21) comprising a plurality of power supply units (See Greenwood e.g. the power supply units (PSU) of Figs. 1-2, Page 2 lines 6-20), a control means, with power distribution units (See Greenwood e.g. the power distribution units (PDU) of Figs. 1-2, Page 1 lines 6-21), upon a reduction in voltage from the power supply (See Greenwood e.g. load shedding and load restoration process of Fig. 2, Page 2 lines 6-20), to disconnect the transceivers in a progressive manner according to predetermined thresholds criterion (See Greenwood e.g. the alteration of pre-programmed priority ratings to facilitate different priority ratings of transceivers of Fig. 2 page 2 lines 6-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide above teachings of Greenwood to Ruska for providing the base station/the node with a design solution to achieve an optimum reliability and flexibility as discussed (See Greenwood e.g. Page 1 lines 9-11).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the invention is operable to adjust power slightly during the day to limit the amount of traffic so that the apparatus is fully functional overnight and conserving energy for use of the apparatus over a long period of time on, Page 10 of the Remarks) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181,26 USPQ2d 1057 (Fed. Cir. 1993).

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).Therefore, the previous rejection is maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 9-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruska Tauno (U.S. Pat. No.: 6584330 B1) in view of Martin W. Greenwood (GB 2281458 A).

As per claim 9, Ruska teaches a telecommunication apparatus (See Ruska e.g. the radio network controller (RNC), radio base station (RBS) of Fig. 1a, Col. 3:42-47) having a plurality of base station components (See Ruska e.g. sector off, sleep of channels, MCPA switch off, sleep of boards, carrier off and reduced fans of Fig. 4 elements 71-79, Col. 5:42-58), and a power supply unit for powering the base station components (See Ruska e.g. the input power and power measuring device of Fig. 4 element 63, Col. 5:59-61) comprising: a control means (See Ruska e.g. statistical analyzer/compiler and power save control logic (PSCL) of Fig. 4 elements 67,69, Col. 6:5-15) adapted to receive input information on a power criterion (See Ruska e.g. collecting and compiling of data from the input power measuring device 63, traffic load

measuring device 61, and PSCL by the statistical analyzer/compiler of Fig. 4, Col. 6:5-15, Col. 6:54-67) so as to determine a power budget for the power supply unit and the plurality of the base station components based on the power criterion (See Ruska e.g. sector off, sleep of channels, MCPA switch off, sleep of boards, carrier off and reduced fans of Fig. 4 elements 71-79, Col. 5:42-58); wherein the power budget is less than the power required for maximum traffic handling of all the traffic handling units (See Ruska e.g. turning off sectors, putting channels to sleep mode, turning MCPA off, implementing boards sleep process, switching carrier off and reducing fans' speed i.e. less power budget of Fig. 4 elements 71-79, Col. 5:42-58) and less than the maximum available power from all the power supply units (See Ruska e.g. turning off and implementing sleep mode to the base station components i.e. deficiency of power of Figs. 4, 12 and Col. 5:42-58); and the control means operable to activate an amount of base station components of the plurality of the base station components having a total power consumption equal to or less than the power budget (See Ruska e.g. performing a combination of power saving functions based on the power criterion of Figs. 4, 12, Col. 6:5-15, Col. 6:54-67, Col. 7:1-6); and the control means operable to activate an amount of power supply unit of the power supply unit matching the total power consumption of the amount of activated base station components (See Ruska e.g. implementing the power saving mode and performing a combination of power saving functions based on the power criterion of Figs. 4, 12, Col. 6:5-15, Col. 6:54-67, Col. 7:1-6).

Ruska further teaches wherein the control means are operable to transfer active traffic from a base station component which is to be de-activated (See Ruska e.g.

transferring or moving traffic load of Fig. 12, and Col. 10:39-60), to one or more of the other activated base station components, before de-activating the to be de-activated base station component (See Ruska e.g. transferring traffic load from one carrier to another to implement the power saving functions of Fig. 12, and Col. 10:39-60). However, Ruska is silent about a plurality of traffic handling units and a plurality of power supply units.

In an analogous filed of endeavor, Martin teaches a plurality of traffic handling units and a plurality of power supply units (See Greenwood e.g. load shedding and load restoration process, the base station with the transceivers (TRX), the power supply units (PSU), the power distribution units (PDU) of Figs. 1-2, Page 1 lines 6-21, and Page 2 lines 6-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide above teachings of Greenwood to Ruska for providing the base station/the node with a design solution to achieve an optimum reliability and flexibility as discussed (See Greenwood e.g. Page 1 lines 9-11).

As per claims 10, 16, 22, the combination teaches everything claimed as discussed in the rejected claim 9. Further, Ruska teaches wherein the control means are adapted to transfer active traffic from a traffic handling unit (See Ruska e.g. sector off, sleep of channels, MCPA switch off, sleep of boards, carrier off and reduced fans of Fig. 4 elements 71-79, Col. 5:42-58) which is to be de-activated, to one or more of the activated traffic handling units, before de-activating the to be de-activated traffic handling unit (See Ruska e.g. transferring traffic load from one carrier to another to implement the power saving functions of Fig. 12, and Col. 10:39-60).

As per claims 11, 17, 23, the combination teaches everything claimed as discussed in the rejected claim 9. Further, Ruska teaches wherein a maximum power output of a subgroup of the plurality of power supply units matches a maximum power consumption of a subgroup of the plurality of traffic handling units (See Ruska e.g. implementing the power saving mode and performing a combination of power saving functions based on the power criterion, collecting and compiling of data from the input power measuring device 63, traffic load measuring device 61, and PSCL by the statistical analyzer/compiler of Fig. 4, Col. 6:5-15, Col. 6:54-67, Col. 7:1-6).

As per claims 12, 18, 24, the combination teaches everything claimed as discussed in the rejected claim 9. Further, Ruska teaches wherein the control means further comprises: a power status monitor for determining the power budget based on the power criterion (See Ruska e.g. gathering data from the input power measuring device 63, traffic load measuring device 61, and PSCL by the statistical analyzer to implement power savings of Fig. 4, Col. 6:26-42); a regulator for generating a regulator signal from an amount of active traffic (See Ruska e.g. turning off the base station components to save power, transferring traffic load from one carrier to another to implement the power saving functions i.e. regulating the active traffic of Fig. 4, 12 and Col. 6:54-67, Col. 10:39-60); and a decider for deciding on an activation of one or more of the plurality of power supply units based on the power budget as determined by the power status monitor, the regulator signal and an actual power consumption (See Ruska e.g. implementing the power saving mode and performing a combination of power saving functions based on the power criterion, collecting and compiling of data

from the input power measuring device 63, traffic load measuring device 61, and PSCL by the statistical analyzer/compiler of Fig. 4, Col. 6:5-15, Col. 6:54-67, Col. 7:1-6).

As per claims 13, 19, 25, the combination teaches everything claimed as discussed in the rejected claim 12. Further, Ruska teaches wherein the decider comprises a decision mechanism for taking account of the power budget as a limit value (See Ruska e.g. the statistical analyzer/compiler gathering the available power budget of Fig. 4, Col. 6:5-15), the regulator signal as a desired value (See Ruska e.g. turning off the base station components to save power, transferring traffic load from one carrier to another to implement the power saving functions i.e. desired value of Fig. 4, 12 and Col. 6:54-67, Col. 10:39-60), and the actual used power as a factual value (See Ruska e.g. the PSCL controlling the usage selection and implementation of power functions of Fig. 4, Col. 6:54-67), the decision mechanism being adapted for activating as many power supply units and traffic handling units as required to match the regulator signal (See Ruska e.g. the statistical analyzer/compiler, PSCL working together to conduct the power saving process of Fig. 4, Col. 6:5-15, Col. 6:26-42, and Col. 6: 54-67), the decision mechanism however being adapted to activate no more power supply units and traffic handling units than allowed by the power budget (See Ruska e.g. performing a combination of power saving functions based on the power criterion of Figs. 4, 12, Col. 6:54-67, Col. 7:1-6).

As per claims 14, 20, 26, the combination teaches everything claimed as discussed in the rejected claim 9. Further, Ruska teaches wherein the control means further comprises: a stay alive mechanism operable (See Ruska e.g., a multiple of static

or dynamic thresholds procedure of Fig. 10, Col. 10:24-30), when the power budget is under a first, predetermined level, to only activate power supplies and traffic handling units to process emergency calls (See Ruska e.g., the thresholds defining the traffic load level to be used to implement power saving techniques i.e. the first threshold of Fig. 10, Col. 10:44-60); the stay alive mechanism operable, when the power budget is under a second, predetermined level which is lower than the first level, to not activate any of the traffic handling units and only keep the control means and further monitoring hardware active (See Ruska e.g., the thresholds defining the traffic load level to be used to implement power saving techniques i.e. the second threshold of Fig. 10, Col. 10:44-60), and the stay alive mechanism operable, when the power budget is under a third, predetermined level which is lower than the second level, to shut down the telecommunication apparatus (See Ruska e.g., the thresholds defining the traffic load level to be used to implement power saving techniques i.e. the third threshold of Fig. 10, Col. 10:44-60).

As per claims 15, 21, the combination teaches everything claimed as discussed in the rejected claim 9. Further, Martin teaches wherein the power criterion comprises at least one selected from the group consisting of: an amount of solar cell generated power, a charging condition of a battery for supplying power to the apparatus, a value of a mains voltage supplied to the apparatus, an amount of fuel in a fuel tank of a generator for generating power for feeding the apparatus, and a failure of a power supply unit (See Martin e.g., a primary failure of power source and the battery of Fig. 1, Page 3 lines 20-23).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 09:00 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BABAR SARWAR/
Examiner, Art Unit 2617

/KAMRAN AFSHAR/

Primary Examiner, Art Unit 2617